

Newborn Exam

Your only required reading for this lecture is this presentation

Other references:

Physical Assessment of the Newborn

Tappero, E; Honeyfield,,ME

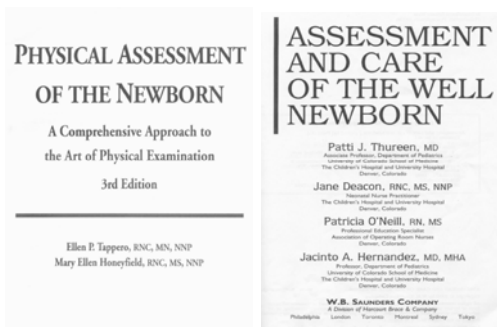
Assessment and Care of the Well Newborn

Thureen, Deacon, O'Neill, Hernandez

EMC 420: Maternal & Child Emergency Care
D. Trigg, MD

EMC 420

Ref texts



EMC 420

Objectives

This lecture will enable you to:

- Identify some of the physical findings routinely assessed on all normal newborns
- Identify abnormalities - some minor, some more worrisome – that may be found on the head to toe examination of the newborn
- Gather information that may help initiate an intervention or may simply be reassuring to the newborn's family

EMC 420

Head to Toe Exam

TABLE 1-1 A Observations for Physical Assessment	
To Assess	Observe
Distress	Facial expression, respiratory effort, activity, tone
Color	Tongue, mucous membranes (centrally pink vs cyanotic), nail beds, hands, feet (peripherally pink vs cyanotic), skin (jaundice, pallor, ruddiness, mottling), perfusion, meconium staining
Nutrition status	Subcutaneous fat, breast nodule
Hydration status	Skin turgor, anterior fontanel
Gestational age	Skin (smooth vs peeling), ear cartilage, areola and nipple formation, breast nodule, sole creases, descent of testes, rugae, labia
Neurologic status	Posture, tone, activity, response to stimuli, cry, state, state transition, reflexes
Respiratory/chest status	Respiratory rate and effort, retractions, nasal flaring, grunting, audible stridor or wheezing, chest shape, nipples (number and position), skin color
Cardiovascular status	Precordial activity, visible point of maximal intensity, skin perfusion and color
Abdomen	Size (flat, distended, taut, thin), shape (round, concave), dimension (generalized or localized), visible peristaltic waves, visible bowel loops, muscular development/tone, umbilical cord, umbilical vessels, drainage from cord, periumbilical erythema (redness)
Head	Size, shape, anterior fontanel, hair distribution, condition of hair
Eyes	Shape, size, position, pupils, blink, extraocular movements, color of sclera, discharge, ability to fix and follow
Ears	Shape, position, external auditory canal, response to sound
Nose	Shape, nares, flaring, nasal bridge
Mouth	Shape, symmetry, movement, philtrum, tongue, palate, natal teeth, gums, jaw size
Neck	Shape, range of motion, webbing
Genitalia (male)	Scrotum, descent of testes, rugae, inguinal canals, foreskin, penile size, urine stream, meatus, penile/urethral, strab
Genitalia (female)	Labia majora, labia minora, clitoris, vagina, perineum, inguinal canals, anus
Skin	Color, texture, firmness, venous caposities, masses, lanugo, lesions (pigmentary, vascular, trauma-related, infectious)
Extremities	Posture, range of motion (involuntary movement), digits, palmar creases, soles of feet, nails

EMC 420

Post Delivery Check Sheet

Baby's Name _____		Pediatrician _____		Room _____		Time _____	
Mother's Name _____		DOB _____		Gestational Age _____		Circumference _____	
Delivery: Vaginal _____		C/S _____		Forceps _____		Vacuum _____	
				1-24 Hours Culture _____		C/O Ear _____	
						C/O Discharge _____	

DELIVERY ROOM INTERVENTIONS			
Suction with: Bulb Syringe _____, Oral Suction _____, 6-8-10 _____ Color of Mucous: Clear _____, Bloody _____, Meconium _____ Amount of Mucous: Small _____, Moderate _____, Large _____ Breathing: Oxygen to Face _____ min, with _____ cm of H ₂ O Pressure (Rate 40-60/min) by whom _____ Bag and Mask Ventilation _____ min, with _____ cm of H ₂ O Pressure (Rate 40-60/min) by whom _____ Intubation with 2.5-3.0 _____, 3.5-4.0 _____, 4.0 _____, time: Breath Sounds R _____, L _____ by whom _____ Circulation: External Cardiac Massage Started at _____ HR, Stopped _____ HR, by whom _____ Drugs: Estimated at _____ mg, Epinephrine 1:10,000 (0.1 cc/kg) _____ cc IV _____ time _____ Vit K _____ mg, Vit B12 _____ mg, Vit C _____ mg, Vit E _____ mg, Vit A _____ mg, Vit D _____ mg, Vit K _____ mg, Vit B12 _____ mg, Vit C _____ mg, Vit E _____ mg, Vit A _____ mg, Vit D _____ mg Neonatal Napsin (0.01 mg = 0.5 cc/kg) _____ cc IM _____ time _____ Vitamin K 1 mg Mixture _____ time _____ by whom _____ Erythromycin ointment to eyes time _____ Extremities: Placed on Radiant Warmer _____ Time _____ Stable Banding with Family _____ Transported to NBN via Transport Isolate or Carried by _____ Signature _____ Date _____ Time _____ Length _____ in _____ cm HC _____ in _____ cm Chest _____ in _____ cm Umbilical Stump _____ # of Vessels _____	Meconium Amniotic Fluid: Thick _____ Thin _____ Perforated _____ Not Visualized _____ Cord Visualized: Clear _____ Meconium at Cord _____ by whom _____ # of intubation with 3.0 _____, 3.5 _____, 4.0 _____, 4.0 _____, 4.0 _____ Suction below cords for small _____, moderate _____, large _____, clear _____ Apgar Score 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____ 11 _____ 12 _____ 13 _____ 14 _____ 15 _____ 16 _____ 17 _____ 18 _____ 19 _____ 20 _____ 21 _____ 22 _____ 23 _____ 24 _____ 25 _____ 26 _____ 27 _____ 28 _____ 29 _____ 30 _____ 31 _____ 32 _____ 33 _____ 34 _____ 35 _____ 36 _____ 37 _____ 38 _____ 39 _____ 40 _____ 41 _____ 42 _____ 43 _____ 44 _____ 45 _____ 46 _____ 47 _____ 48 _____ 49 _____ 50 _____ 51 _____ 52 _____ 53 _____ 54 _____ 55 _____ 56 _____ 57 _____ 58 _____ 59 _____ 60 _____ 61 _____ 62 _____ 63 _____ 64 _____ 65 _____ 66 _____ 67 _____ 68 _____ 69 _____ 70 _____ 71 _____ 72 _____ 73 _____ 74 _____ 75 _____ 76 _____ 77 _____ 78 _____ 79 _____ 80 _____ 81 _____ 82 _____ 83 _____ 84 _____ 85 _____ 86 _____ 87 _____ 88 _____ 89 _____ 90 _____ 91 _____ 92 _____ 93 _____ 94 _____ 95 _____ 96 _____ 97 _____ 98 _____ 99 _____ 100 _____ 101 _____ 102 _____ 103 _____ 104 _____ 105 _____ 106 _____ 107 _____ 108 _____ 109 _____ 110 _____ 111 _____ 112 _____ 113 _____ 114 _____ 115 _____ 116 _____ 117 _____ 118 _____ 119 _____ 120 _____ 121 _____ 122 _____ 123 _____ 124 _____ 125 _____ 126 _____ 127 _____ 128 _____ 129 _____ 130 _____ 131 _____ 132 _____ 133 _____ 134 _____ 135 _____ 136 _____ 137 _____ 138 _____ 139 _____ 140 _____ 141 _____ 142 _____ 143 _____ 144 _____ 145 _____ 146 _____ 147 _____ 148 _____ 149 _____ 150 _____ 151 _____ 152 _____ 153 _____ 154 _____ 155 _____ 156 _____ 157 _____ 158 _____ 159 _____ 160 _____ 161 _____ 162 _____ 163 _____ 164 _____ 165 _____ 166 _____ 167 _____ 168 _____ 169 _____ 170 _____ 171 _____ 172 _____ 173 _____ 174 _____ 175 _____ 176 _____ 177 _____ 178 _____ 179 _____ 180 _____ 181 _____ 182 _____ 183 _____ 184 _____ 185 _____ 186 _____ 187 _____ 188 _____ 189 _____ 190 _____ 191 _____ 192 _____ 193 _____ 194 _____ 195 _____ 196 _____ 197 _____ 198 _____ 199 _____ 200 _____ 201 _____ 202 _____ 203 _____ 204 _____ 205 _____ 206 _____ 207 _____ 208 _____ 209 _____ 210 _____ 211 _____ 212 _____ 213 _____ 214 _____ 215 _____ 216 _____ 217 _____ 218 _____ 219 _____ 220 _____ 221 _____ 222 _____ 223 _____ 224 _____ 225 _____ 226 _____ 227 _____ 228 _____ 229 _____ 230 _____ 231 _____ 232 _____ 233 _____ 234 _____ 235 _____ 236 _____ 237 _____ 238 _____ 239 _____ 240 _____ 241 _____ 242 _____ 243 _____ 244 _____ 245 _____ 246 _____ 247 _____ 248 _____ 249 _____ 250 _____ 251 _____ 252 _____ 253 _____ 254 _____ 255 _____ 256 _____ 257 _____ 258 _____ 259 _____ 260 _____ 261 _____ 262 _____ 263 _____ 264 _____ 265 _____ 266 _____ 267 _____ 268 _____ 269 _____ 270 _____ 271 _____ 272 _____ 273 _____ 274 _____ 275 _____ 276 _____ 277 _____ 278 _____ 279 _____ 280 _____ 281 _____ 282 _____ 283 _____ 284 _____ 285 _____ 286 _____ 287 _____ 288 _____ 289 _____ 290 _____ 291 _____ 292 _____ 293 _____ 294 _____ 295 _____ 296 _____ 297 _____ 298 _____ 299 _____ 300 _____ 301 _____ 302 _____ 303 _____ 304 _____ 305 _____ 306 _____ 307 _____ 308 _____ 309 _____ 310 _____ 311 _____ 312 _____ 313 _____ 314 _____ 315 _____ 316 _____ 317 _____ 318 _____ 319 _____ 320 _____ 321 _____ 322 _____ 323 _____ 324 _____ 325 _____ 326 _____ 327 _____ 328 _____ 329 _____ 330 _____ 331 _____ 332 _____ 333 _____ 334 _____ 335 _____ 336 _____ 337 _____ 338 _____ 339 _____ 340 _____ 341 _____ 342 _____ 343 _____ 344 _____ 345 _____ 346 _____ 347 _____ 348 _____ 349 _____ 350 _____ 351 _____ 352 _____ 353 _____ 354 _____ 355 _____ 356 _____ 357 _____ 358 _____ 359 _____ 360 _____ 361 _____ 362 _____ 363 _____ 364 _____ 365 _____ 366 _____ 367 _____ 368 _____ 369 _____ 370 _____ 371 _____ 372 _____ 373 _____ 374 _____ 375 _____ 376 _____ 377 _____ 378 _____ 379 _____ 380 _____ 381 _____ 382 _____ 383 _____ 384 _____ 385 _____ 386 _____ 387 _____ 388 _____ 389 _____ 390 _____ 391 _____ 392 _____ 393 _____ 394 _____ 395 _____ 396 _____ 397 _____ 398 _____ 399 _____ 400 _____ 401 _____ 402 _____ 403 _____ 404 _____ 405 _____ 406 _____ 407 _____ 408 _____ 409 _____ 410 _____ 411 _____ 412 _____ 413 _____ 414 _____ 415 _____ 416 _____ 417 _____ 418 _____ 419 _____ 420 _____ 421 _____ 422 _____ 423 _____ 424 _____ 425 _____ 426 _____ 427 _____ 428 _____ 429 _____ 430 _____ 431 _____ 432 _____ 433 _____ 434 _____ 435 _____ 436 _____ 437 _____ 438 _____ 439 _____ 440 _____ 441 _____ 442 _____ 443 _____ 444 _____ 445 _____ 446 _____ 447 _____ 448 _____ 449 _____ 450 _____ 451 _____ 452 _____ 453 _____ 454 _____ 455 _____ 456 _____ 457 _____ 458 _____ 459 _____ 460 _____ 461 _____ 462 _____ 463 _____ 464 _____ 465 _____ 466 _____ 467 _____ 468 _____ 469 _____ 470 _____ 471 _____ 472 _____ 473 _____ 474 _____ 475 _____ 476 _____ 477 _____ 478 _____ 479 _____ 480 _____ 481 _____ 482 _____ 483 _____ 484 _____ 485 _____ 486 _____ 487 _____ 488 _____ 489 _____ 490 _____ 491 _____ 492 _____ 493 _____ 494 _____ 495 _____ 496 _____ 497 _____ 498 _____ 499 _____ 500 _____ 501 _____ 502 _____ 503 _____ 504 _____ 505 _____ 506 _____ 507 _____ 508 _____ 509 _____ 510 _____ 511 _____ 512 _____ 513 _____ 514 _____ 515 _____ 516 _____ 517 _____ 518 _____ 519 _____ 520 _____ 521 _____ 522 _____ 523 _____ 524 _____ 525 _____ 526 _____ 527 _____ 528 _____ 529 _____ 530 _____ 531 _____ 532 _____ 533 _____ 534 _____ 535 _____ 536 _____ 537 _____ 538 _____ 539 _____ 540 _____ 541 _____ 542 _____ 543 _____ 544 _____ 545 _____ 546 _____ 547 _____ 548 _____ 549 _____ 550 _____ 551 _____ 552 _____ 553 _____ 554 _____ 555 _____ 556 _____ 557 _____ 558 _____ 559 _____ 560 _____ 561 _____ 562 _____ 563 _____ 564 _____ 565 _____ 566 _____ 567 _____ 568 _____ 569 _____ 570 _____ 571 _____ 572 _____ 573 _____ 574 _____ 575 _____ 576 _____ 577 _____ 578 _____ 579 _____ 580 _____ 581 _____ 582 _____ 583 _____ 584 _____ 585 _____ 586 _____ 587 _____ 588 _____ 589 _____ 590 _____ 591 _____ 592 _____ 593 _____ 594 _____ 595 _____ 596 _____ 597 _____ 598 _____ 599 _____ 600 _____ 601 _____ 602 _____ 603 _____ 604 _____ 605 _____ 606 _____ 607 _____ 608 _____ 609 _____ 610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____ 616 _____ 617 _____ 618 _____ 619 _____ 620 _____ 621 _____ 622 _____ 623 _____ 624 _____ 625 _____ 626 _____ 627 _____ 628 _____ 629 _____ 630 _____ 631 _____ 632 _____ 633 _____ 634 _____ 635 _____ 636 _____ 637 _____ 638 _____ 639 _____ 640 _____ 641 _____ 642 _____ 643 _____ 644 _____ 645 _____ 646 _____ 647 _____ 648 _____ 649 _____ 650 _____ 651 _____ 652 _____ 653 _____ 654 _____ 655 _____ 656 _____ 657 _____ 658 _____ 659 _____ 660 _____ 661 _____ 662 _____ 663 _____ 664 _____ 665 _____ 666 _____ 667 _____ 668 _____ 669 _____ 670 _____ 671 _____ 672 _____ 673 _____ 674 _____ 675 _____ 676 _____ 677 _____ 678 _____ 679 _____ 680 _____ 681 _____ 682 _____ 683 _____ 684 _____ 685 _____ 686 _____ 687 _____ 688 _____ 689 _____ 690 _____ 691 _____ 692 _____ 693 _____ 694 _____ 695 _____ 696 _____ 697 _____ 698 _____ 699 _____ 700 _____ 701 _____ 702 _____ 703 _____ 704 _____ 705 _____ 706 _____ 707 _____ 708 _____ 709 _____ 710 _____ 711 _____ 712 _____ 713 _____ 714 _____ 715 _____ 716 _____ 717 _____ 718 _____ 719 _____ 720 _____ 721 _____ 722 _____ 723 _____ 724 _____ 725 _____ 726 _____ 727 _____ 728 _____ 729 _____ 730 _____ 731 _____ 732 _____ 733 _____ 734 _____ 735 _____ 736 _____ 737 _____ 738 _____ 739 _____ 740 _____ 741 _____ 742 _____ 743 _____ 744 _____ 745 _____ 746 _____ 747 _____ 748 _____ 749 _____ 750 _____ 751 _____ 752 _____ 753 _____ 754 _____ 755 _____ 756 _____ 757 _____ 758 _____ 759 _____ 760 _____ 761 _____ 762 _____ 763 _____ 764 _____ 765 _____ 766 _____ 767 _____ 768 _____ 769 _____ 770 _____ 771 _____ 772 _____ 773 _____ 774 _____ 775 _____ 776 _____ 777 _____ 778 _____ 779 _____ 780 _____ 781 _____ 782 _____ 783 _____ 784 _____ 785 _____ 786 _____ 787 _____ 788 _____ 789 _____ 790 _____ 791 _____ 792 _____ 793 _____ 794 _____ 795 _____ 796 _____ 797 _____ 798 _____ 799 _____ 800 _____ 801 _____ 802 _____ 803 _____ 804 _____ 805 _____ 806 _____ 807 _____ 808 _____ 809 _____ 810 _____ 811 _____ 812 _____ 813 _____ 814 _____ 815 _____ 816 _____ 817 _____ 818 _____ 819 _____ 820 _____ 821 _____ 822 _____ 823 _____ 824 _____ 825 _____ 826 _____ 827 _____ 828 _____ 829 _____ 830 _____ 831 _____ 832 _____ 833 _____ 834 _____ 835 _____ 836 _____ 837 _____ 838 _____ 839 _____ 840 _____ 841 _____ 842 _____ 843 _____ 844 _____ 845 _____ 846 _____ 847 _____ 848 _____ 849 _____ 850 _____ 851 _____ 852 _____ 853 _____ 854 _____ 855 _____ 856 _____ 857 _____ 858 _____ 859 _____ 860 _____ 861 _____ 862 _____ 863 _____ 864 _____ 865 _____ 866 _____ 867 _____ 868 _____ 869 _____ 870 _____ 871 _____ 872 _____ 873 _____ 874 _____ 875 _____ 876 _____ 877 _____ 878 _____ 879 _____ 880 _____ 881 _____ 882 _____ 883 _____ 884 _____ 885 _____ 886 _____ 887 _____ 888 _____ 889 _____ 890 _____ 891 _____ 892 _____ 893 _____ 894 _____ 895 _____ 896 _____ 897 _____ 898 _____ 899 _____ 900 _____ 901 _____ 902 _____ 903 _____ 904 _____ 905 _____ 906 _____ 907 _____ 908 _____ 909 _____ 910 _____ 911 _____ 912 _____ 913 _____ 914 _____ 915 _____ 916 _____ 917 _____ 918 _____ 919 _____ 920 _____ 921 _____ 922 _____ 923 _____ 924 _____ 925 _____ 926 _____ 927 _____ 928 _____ 929 _____ 930 _____ 931 _____ 932 _____ 933 _____ 934 _____ 935 _____ 936 _____ 937 _____ 938 _____ 939 _____ 940 _____ 941 _____ 942 _____ 943 _____ 944 _____ 945 _____ 946 _____ 947 _____ 948 _____ 949 _____ 950 _____ 951 _____ 952 _____ 953 _____ 954 _____ 955 _____ 956 _____ 957 _____ 958 _____ 959 _____ 960 _____ 961 _____ 962 _____ 963 _____ 964 _____ 965 _____ 966 _____ 967 _____ 968 _____ 969 _____ 970 _____ 971 _____ 972 _____ 973 _____ 974 _____ 975 _____ 976 _____ 977 _____ 978 _____ 979 _____ 980 _____ 981 _____ 982 _____ 983 _____ 984 _____ 985 _____ 986 _____ 987 _____ 988 _____ 989 _____ 990 _____ 991 _____ 992 _____ 993 _____ 994 _____ 995 _____ 996 _____ 997 _____ 998 _____ 999 _____ 1000 _____ 1001 _____ 1002 _____ 1003 _____ 1004 _____ 1005 _____ 1006 _____ 1007 _____ 1008 _____ 1009 _____ 1010 _____ 1011 _____ 1012 _____ 1013 _____ 1014 _____ 1015 _____ 1016 _____ 1017 _____ 1018 _____ 1019 _____ 1020 _____ 1021 _____ 1022 _____ 1023 _____ 1024 _____ 1025 _____ 1026 _____ 1027 _____ 1028 _____ 1029 _____ 1030 _____ 1031 _____ 1032 _____ 1033 _____ 1034 _____ 1035 _____ 1036 _____ 1037 _____ 1038 _____ 1039 _____ 1040 _____ 1041 _____ 1042 _____ 1043 _____ 1044 _____ 1045 _____ 1046 _____ 1047 _____ 1048 _____ 1049 _____ 1050 _____ 1051 _____ 1052 _____ 1053 _____ 1054 _____ 1055 _____ 1056 _____ 1057 _____ 1058 _____ 1059 _____ 1060 _____ 1061 _____ 1062 _____ 1063 _____ 1064 _____ 1065 _____ 1066 _____ 1067 _____ 1068 _____ 1069 _____ 1070 _____ 1071 _____ 1072 _____ 1073 _____ 1074 _____ 1075 _____ 1076 _____ 1077 _____ 1078 _____ 1079 _____ 1080 _____ 1081 _____ 1082 _____ 1083 _____ 1084 _____ 1085 _____ 1086 _____ 1087 _____ 1088 _____ 1089 _____ 1090 _____ 1091 _____ 1092 _____ 1093 _____ 1094 _____ 1095 _____ 1096 _____ 1097 _____ 1098 _____ 1099 _____ 1100 _____ 1101 _____ 1102 _____ 1103 _____ 1104 _____ 1105 _____ 1106 _____ 1107 _____ 1108 _____ 1109 _____ 1110 _____ 1111 _____ 1112 _____ 1113 _____ 1114 _____ 1115 _____ 1116 _____ 1117 _____ 1118 _____ 1119 _____ 1120 _____ 1121 _____ 1122 _____ 1123 _____ 1124 _____ 1125 _____ 1126 _____ 1127 _____ 1128 _____ 1129 _____ 1130 _____ 1131 _____ 1132 _____ 1133 _____ 1134 _____ 1135 _____ 1136 _____ 1137 _____ 1138 _____ 1139 _____ 1140 _____ 1141 _____ 1142 _____ 1143 _____ 1144 _____ 1145 _____ 1146 _____ 1147 _____ 1148 _____ 1149 _____ 1150 _____ 1151 _____ 1152 _____ 1153 _____ 1154 _____ 1155 _____ 1156 _____ 1157 _____ 1158 _____ 1159 _____ 1160 _____ 1161 _____ 1162 _____ 1163 _____ 1164 _____ 1165 _____ 1166 _____ 1167 _____ 1168 _____ 1169 _____ 1170 _____ 1171 _____ 1172 _____ 1173 _____ 1174 _____ 1175 _____ 1176 _____ 1177 _____ 1178 _____ 1179 _____ 1180 _____ 1181 _____ 1182 _____ 1183 _____ 1184 _____ 1185 _____ 1186 _____ 1187 _____ 1188 _____ 1189 _____ 1190 _____ 1191 _____ 1192 _____ 1193 _____ 1194 _____ 1195 _____ 1196 _____ 1197 _____ 1198 _____ 1199 _____ 1200 _____ 1201 _____ 1202 _____ 1203 _____ 1204 _____ 1205 _____ 1206 _____ 1207 _____ 1208 _____ 1209 _____ 1210 _____ 1211 _____ 1212 _____ 1213 _____ 1214 _____ 1215 _____ 1216 _____ 1217 _____ 1218 _____ 1219 _____ 1220 _____ 1221 _____ 1222 _____ 1223 _____ 1224 _____ 1225 _____ 1226 _____ 1227 _____ 1228 _____ 1229 _____ 1230 _____ 1231 _____ 1232 _____ 1233 _____ 1234 _____ 1235 _____ 1236 _____ 1237 _____ 1238 _____ 123		

Maturation Check Sheet

FIGURE 2-2 ■ Gestational age assessment scoring system: Neurologic and physical criteria (New Ballard Score)

Maturation Assessment of Gestational Age (New Ballard Score)

Name: _____ Sex: _____
 Hospital no.: _____ Date of birth: _____
 Age when examined: _____ Length: _____
 Age at exam: 1 minute _____ 5 minutes _____ 10 minutes _____ Head size: _____ Examination: _____

Neurological Maturity		Scores					Record Score Here	Score
Neurological Maturity Age	1	2	3	4	5			
Posture	flexed	flexed	flexed	flexed	flexed			
Neck flexion	flexed	flexed	flexed	flexed	flexed			
Arm flexion	flexed	flexed	flexed	flexed	flexed			
Hand grip	flexed	flexed	flexed	flexed	flexed			
Plantar flexion	flexed	flexed	flexed	flexed	flexed			
Head to ear	flexed	flexed	flexed	flexed	flexed			
Total Neurological Maturity Score								

Physical Maturity		Scores					Record Score Here	Score
Physical Maturity Age	1	2	3	4	5			
Sex	male	female	female	female	female			
Genitalia	male	female	female	female	female			
Placental surface	flexed	flexed	flexed	flexed	flexed			
Breast	flexed	flexed	flexed	flexed	flexed			
Thighs	flexed	flexed	flexed	flexed	flexed			
Heel to ear	flexed	flexed	flexed	flexed	flexed			
Head to ear	flexed	flexed	flexed	flexed	flexed			
Total Physical Maturity Score								

Maturation Rating

Score _____ Weeks _____

EMC 420

Skin

- Meconium staining
- Rash
- Color
- Maturation stages
 - Lanugo (20-28 wk)
 - Vernix (35-40 wk)
 - Peeling (≥ 41 wk)
 - Post term



EMC 420

Vernix Caseosa

Skin

- Vernix
 - White
 - Cheesy / Vaseline-like
 - 35 - 40 weeks
 - Decreases as term delivery nears



EMC 420

Milia

Skin

- Rash
 - Milia
- Milia
 - 40 % of term babies
 - Tan facial “whiteheads”
 - Disappear within weeks



EMC 420

Erythema Toxicum

Skin

- Rash
 - Erythema Toxicum
 - Acne-form rash
 - May look pustular
 - Resolves in 4-5 days

Not shown here:

- Meconium staining
- Simian crease
 - Trisomy 21 [Down's]



EMC 420

Hyperpigmentation

- AKA Mongolian spot
- Dark, blue-purple coloration over the lumbosacral area
- More common in dark skinned infants



EMC 420

Jaundice

Hemolytic

- Antibody attack of red cells
 - Rh incompatibility
- Non-Antibody red cell disease
 - G6PD deficiency

Non- Hemolytic

- **Not** within the first 24 hrs
- Physiologic jaundice
- Breast-feeding jaundice

Kernicterus

EMC 420

Physiologic Jaundice

Normal, Non- Hemolytic

- Physiologic consequence of
 - Excessive red cells at birth
 - Fetal red blood cell life-span
 - Immature liver
 - Possible biologic advantage of bilirubin (as an antioxidant)
- Breast-feeding jaundice
 - Also usually benign
 - Dehydration and/or pregnanediol
 - May last 12 weeks

EMC 420

Molding of Head

Head

- Molding
- Caput
- Cephalohematoma
- Forceps marks

Mouth

- Hard and soft palate
- Cleft
- Suck



EMC 420

Mouth

Mouth

- Micrognathia
 - Abnormally small jaw
- Robin syndrome
- Airway compromise



EMC 420

Blister

- R/O herpetic lesion
- Suck Blisters
 - Hand
 - Lip



EMC 420

Neck

- Ears
 - Normal/ low set
- Neck
 - Nevus flammeus (stork's bite)
 - Clavicles
 - Mobility (torticollis)



EMC 420

Maturation Rating - Flexibility

Neuromuscular maturity

- Popliteal Angle



EMC 420

More Flexible : Less Mature

Scarf sign (upper)

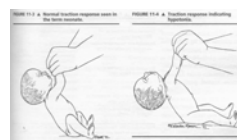
- Mature (left): resists
- Premature: too loose



Traction response

Mature (left): "hangs on"

- Premature: floppy



EMC 420

Muscle Tone

- The floppy newborn
 - R/O prematurity
 - R/O *hypoglycemia*
 - R/O hypocalcemia
 - R/O other CNS Dz
- Testing of tone and reflexes
 - Grasp + Moro



EMC 420

Muscle Tone / the Jittery Newborn

The jittery newborn

- R/O *hypoglycemia*
- R/O hypocalcemia
- R/O heroin withdrawal
- R/O seizures

The jittery newborn

- Worsens with agitating stimuli (noise)
- Improves with handling / passive range of motion

TABLE 11-1 ▲ Distinguishing Seizure Activity from Jitteriness

Clinical finding	Seizure	Jitteriness
Abnormal gaze or eye movements	Yes	No
Stimulus sensitive	No	Yes
Ceases with passive flexion	No	Yes
Autonomic changes	Yes	No
Predominant movement	Clonic jerking	Tremor

EMC 420

Summary

- Physical findings routinely assessed on all normal newborns.
- Abnormalities
 - Minor: Milia
 - Potentially unstable : Jaundice
 - Potentially critical : Robin syndrome
 - Some potentially paramedic-preventable:
 - Brachial plexus injury
- Using "quick maturation estimate" may help anticipate problems and need for intervention(s).

EMC 420